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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/663,045	09/15/2000	Jeffrey Scott Kuskin	73139/0269870	3408

27498 7590 03/08/2005

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2475 HANOVER STREET  
PALO ALTO, CA 94304-1114

EXAMINER
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DUONG, FRANK

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	Application No. 09/663,045	Applicant(s) JEFFREY SCOTT KUSKIN	
	Examiner Frank Duong	Art Unit 2666	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 25 February 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The reply was filed after the date of filing a Notice of Appeal, but prior to the date of filing an appeal brief. The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ They raise the issue of new matter (see NOTE below);
- (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

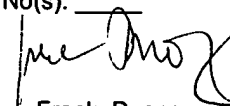
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
- The status of the claim(s) is (or will be) as follows:
- Claim(s) allowed: \_\_\_\_\_.
- Claim(s) objected to: \_\_\_\_\_.
- Claim(s) rejected: \_\_\_\_\_.
- Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See attachment.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_
13. ☐ Other: \_\_\_\_\_.

  
 Frank Duong  
 Primary Examiner  
 Art Unit: 2666

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 2/25/05 have been fully considered but they are not persuasive. The response has been entered and the responses to the Applicants' arguments are as follow:

The Applicants' arguments are not persuasive and the prior art of Hioe et al still reads on the claims in the present condition. In the Remarks of the outstanding response dated 02/25/05, on page 8, first paragraph, Applicants state "To avoid the necessity of an Appeal, Applicants respectfully request reconsideration and allowance of the present application based on the following remarks" Examiner's response is Applicants should further amend the claimed invention from that taught by the applied prior art and timely file response to this Office Action to avoid unnecessary abandonment of this application. The Applicants' arguments are addressed as followings: In the Remarks, on pages 8-12, Applicants allege the Hioe et al patent fails to explicitly teach "transmit buffer" and "receive buffer" in "frame transmitter" and "frame receiver", respectively. To support the allegation Applicants elaborately analyze the passages of Hioe et al patent and merely conclude the Hioe et al fails to teach the disputed limitations. In response Examiner respectfully disagrees. As discussed during the Interview on 2/15/05 and in this Office Action Examiner firmly asserts the disputed limitations clearly anticipated by element 210 or 203 in the transmitter side and element 205 or 206 in the receiver. Let's revisit Hioe et al patent. At col. 6, lines 55-65, Hioe et al. discloses "*data from the input interface 300 is transmitted to a wireless-*

*packetizing block (WeP) 302 from the input interface 300 at a predetermined timing and incorporated into a packet for radio transmission. Coding for radio transmission, error control coding, and encryption if necessary are applied to the packeted data by an encoding block (eC) 304. Then, a digital signal is converted into an analog signal by a baseband modulation block (BB-mod) 306". WeP 302 or BB-mod 306 can be corresponded to the claimed "transmit buffer" because at WeP 302, the received packet must be buffered before incorporating (adding packet header or necessary information for routing or transmitting as known packetizing processing art) and because at BB-mod 306, in order to convert a digital signal into an analog signal, the digital signal must be implicitly buffered, then converted into analog waveform. This is an implicit or inherent function of a baseband modulator in a telecommunication system (see Fig. 9a and the corresponding description at col. 11, line 60 to col. 12, line 4 for an explanation of sorter (ChS) 900). The "receiver buffer" is disclosed at col. 7, lines 15-27, for the same rationales discussed above. Thus, contradistinction to the Applicants' argument, Hioe et al does indeed disclose the disputed limitations.*

In the Remarks of the outstanding response, on page 13, Applicants argue the Hioe et al patent fails to disclose the eC 304 and dC 334 (encryption/decryption) for "sends and receives frames between the transmit buffer and the receive buffer" as a "single element" as recited in claim 1.

Examiner respectfully disagrees and asserts the disclosed elements eC 304 and dC 334 clearly anticipated the claimed limitation of "*an encryption/decryption block that sends and receives frames between the transmit and the receive buffer*". As discussed

during the interview on 2/15/05 and in this Office Action Examiner firmly asserts the disputed limitations clearly anticipated by elements eC 304 and dC 334. Let's revisit Hioe et al patent. At col. 5, lines 14-18, Hioe et al clearly state "*For easy understanding, functional blocks for transmission are mainly shown in a transmission-side radio module 201a and functional blocks for reception are mainly shown in a reception-side radio module 201b*". Figure 3 is just a mere functional blocks of the disclosed system for easy understanding. In a real telecommunications system, the encryption/decryption device is a single piece of equipment having cards for performing encrypting the received data in the transmission side and cards for performing decrypting the received data in the reception side. This conclusion is from Examiner's own experience while serving more than six year as SATCOM technician and/or Krypto specialist in the US Army dealing with uploading and maintaining encryption/decryption device (KG-194 or KG-81) in a tactical satellite communication system (AN-GSC 86). There are different type of Krypto devices. However, the functional structures and operational principles are the same. Thus, contradistinction to the Applicants' argument, Hioe et al does indeed disclose the disputed limitations.

On page 14, Applicants argue "*Hioe Does Not Disclose Implement Time-Critical Processing Functions Using Hardware Operations As Required By Independent Claim 2 ... HARDWARE MAC*".

In response Examiner respectfully disagrees and asserts, as clearly pointed out in the Office Action, Hioe et al patent implicitly and inherently anticipated this claimed limitation. Applicants allege "*If limitation is not found in the reference, the rejection is*

*improper and should be withdrawn. It is not appropriate to conjecture about what the specification opines or does not opine about the novelty of a particular limitation of a claim, much less to base a rejection on such conjecture".* Examiner regrets the Applicants feel this way about Examiner's position. However, in examining the claimed invention Examiner strictly follows the MPEP guideline and treats the claimed limitation in the claims accordingly. A specific defined limitation in the specification is given more weigh. Thus, contradistinction to the Applicants' argument, neither the specification nor the title of the invention discloses the limitation of "using operations implemented by hardware in an integrated circuit" is a novel and unobvious feature.

On page 15, Applicants argue "*Hioe Does Not Disclose A Transmit or Receive State Machine As Required By Dependent Claims 3, 10 and 17 ... should be withdrawn*".

In response Examiner asserts the Office Action does indeed clearly pointed out the disputed features corresponding to Hioe et al disclosed features. Please see Office Action.

On page 16, Applicants argue "*Hioe Does Not Disclose A Frame Filtering Block In a Frame Receiver As Required By Dependent Claims 4, 11 and 18 ... should be withdrawn*".

2. In response Examiner respectfully disagrees and asserts the Hioe et al patent, as clearly pointed out in the Office Action, does indeed anticipate the claimed limitation in the present condition. At col. 12, lines 42-53, Hioe et al discloses "*intermediate frequency components in a narrow intermediate frequency band are separated by the*

*band-pass filters 1038 and demodulated by the hybrid circuit 1036 to low-frequency analog signals with a local oscillation signal output by the multiple-frequency local oscillator 1034. In the baseband modulation block 336, the analog signals are converted from analog to digital values by baseband demodulation (BB-dem) circuits 1024-1 to 1024-n and demodulated to baseband signals".* It is undisputed that the signals are filtered in analog forms. However, the filtered signals are converted into digital signals (frames). Moreover, in accordance with Figs. 1A-1C and the description at col. 4, lines 28-65, it is disclosed communication between elements 101-104 are in frames because of using TDMA method. Thus, it is concluded that the IF-dem and BB-dem circuits do anticipate the claimed limitation of *"a filtering block for filtering frames"*. As for the argument of *"these filters are described as being part of IF-dem block 338, and clearly operate to limit an analog signal to a particular pass-band, and as such do not know or care about frame, and thus cannot filter such"*. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies in the arguments are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

On pages 16-17, Applicants argue *"Hioe Does not Disclose A Retry Operations Block In a Frame Receiver As Required by Dependent Claims 5, 12 and 19 ... should be withdrawn"*.

In response Examiner again respectfully disagrees and asserts the Hioe et al patent, as clearly pointed out in the Office Action, does anticipate the claimed limitations. There are limited ways to combat advert situations such as packet loss or error in wireless packet communications. The known ways are automatic retransmission request (ARQ), forward error correction (FEC) and the combination of ARQ and FEC. Hioe et al patent discloses all known ways at col. 9, lines 41-62 and col. 10, lines 23-30. Control circuit 370 of the control section 360 is responsible for combating advert situations to include request the retransmission of the received wireless packet when any data error is present in the wireless packet (*col. 10, lines 23-30 and thereafter*).

On page 18, Applicants argue "*Hioe Does Not Disclose An Acknowledgement Block In a Frame Transmitter As Required By Dependent Claims 6, 13, 20 ... should be withdrawn*".

In response Examiner respectfully disagrees and asserts the control block 204, as clearly pointed out in the Office Action, does anticipate the claimed limitation. At col. 5, lines 63-66, Hioe et al discloses a feedback loop for cyclically supervising the line quality is formed by transmitting data and a test signal and returning error rate information of the transmitted data corresponding to the claimed limitation.

On page 19, Applicants argue "*Hioe Does Not Disclose A Special Frames Generation Block In A Frame Transmitter As Required By Dependent Claims 7, 14 and 21 ... should be withdrawn*".



In response Examine respectfully disagrees and asserts the modulation block 203 is corresponding to the claimed limitation in the present condition because the claimed limitation of "a special frames generation block" given the broadest reasonable interpretation in consisting with the specification is "a frame generation block" corresponding to sorter 900 inside baseband modulation block 306 arranged wireless packet for transmission as disclosed at col. 11, lines 60-67 and thereafter.

On pages 19-20, Applicants argue "*Hioe Does Not Disclose A Means For Generating Beacons In A Special Frames Generation Block As Required By Dependent Claims 8, 15 and 22 ... should be withdrawn*".

In response Examiner respectfully disagrees and asserts the claimed limitation, as clearly pointed out in the Office Action, does indeed anticipate by Hioe et al patent. Beacon signal is a must have in wireless LAN using TDMA system to assist the wireless terminal in synchronizing with each other. Hioe et al, Fig. 1C shows pilot signals 110a-110b.

On pages 20-21, Applicants argue "*Hioe Does Not Disclose Hardware Operations For Formulating An Outgoing Response Frame As Required By Dependent Claims 24 and 25 ... should be withdrawn*".

In response Examiner respectfully disagrees and asserts the control section 360 does, as clearly analyzed by the Applicants, anticipate the claimed limitations.

As for the response to argument recited on pages 21-23, please see rationales discussed above.

On page 24, Applicants argue "*Hioe Does Not Disclose Hardware For Implementing Functions Of A MAC Sublayer Accordance With IEEE 802.11 As Required By Dependent Claims 32-34 ... should be withdrawn*".

In response Examiner respectfully disagrees. Wireless LAN communication as known in the art must obey certain protocols or communication rules, i.e. IEEE 802.11b, IEEE 802.11a and IEEE 802.11g. At col. 1, lines 7-8, Hioe et al clearly states "*The present invention relates to broadband digital radio communications*" and at col. 4, lines 27-65, in accordance with Fig. 1A, Hioe et al shows "*a radio Local Area Network (LAN) system to which the present invention is applied*" using TDMA method as an accessing method or a media access control (MAC) and frame communication as a communication mode (*Fig. 1C depicts MAC Frame comprising DATA Frame, ACCESS Frame and pilot signals*). There is no doubt that Hioe et al's system must obey the above protocols. The applicable frequency used in Hioe et al's system is 2.4GHz (col. 1, lines 33-35 and thereafter) reflected that of IEEE 802.11 system. Thus, it is concluded that Hioe et al disclosed the claimed limitation. Moreover, IEEE 802.11 is a jointed venture of IEEE task force, not invented by the Applicants of the present patent application, made available to everyone.

On pages 24-25, Applicants argue "*Hioe Does Not Disclose Implementing All Components In A Single Integrated Circuit As Required By Dependent Claims 35-37 ... should be withdrawn*".

In response Examiner respectfully disagrees and asserts the functional blocks in Fig. 2 or 3 are implemented as a single integrated circuit because Fig. 2 or 3 depicts the

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broadband wireless LAN card used in wireless terminals 101-103 of Fig. 1a. A skilled artisan would have recognized that.

Examiner believes an earnest attempt has been made in addressing all of the Applicants' arguments.

A handwritten signature in black ink, appearing to read "Frank Duong", with a stylized, cursive script.

**FRANK DUONG**  
**PRIMARY EXAMINER**